

WHAT IS CLAIMED IS:

1. A method for selecting and feeding articles to blister packs or containers, from a main hopper, filled with articles, the method including:

providing an auxiliary hopper filled with unselected articles;  
feeding said main hopper with articles taken from said auxiliary hopper through selecting means stopping size-non-matching articles;

removing, from said selecting means the size-non-matching articles stopped therein or thereby to restore a regular article feeding flow;

feeding said blister packs or containers with size-matching articles contained in said main hopper.

2. A method, according to claim 1, wherein the size-non-matching articles passing through the selecting means are stopped within said selecting means due to a tapered section of said selecting means, so that size-non-matching articles are stopped.

3. A method, according to claim 2, wherein said the size-non-matching articles stopped within said tapered section of said selecting means are removed by means of shutters hinged to the tapered section, said shutters being operated to open.

4. A method, according to claim 1, wherein the size-non-matching articles passing through the selecting means are stopped due to interception performed by tubular portions of said selecting means having inner section matching the nominal

size of the articles, so as to stop such size-non-matching articles.

5. A method according to claim 4, wherein said size-non-matching articles stopped by said tubular portions of said selecting means are removed therefrom by swinging said tubular portions downward.

6. A method, according to claim 1, further including checking presence of articles forming a flow of articles through first channels connected to said selecting means, and operating said selecting means upon detection of the flow having being interrupted, to remove size-non-matching articles and restore said flow of size-matching articles through said first channels.

7. A method, according to claim 1, further including cyclical operation of said selecting means to remove size-non-matching articles possibly stopped within or by said selecting means, to keep a continuous flow of size-matching articles.

8. A method, according to claim 1, wherein said selecting means are fed with an article flow rate higher than the flow rate of size-matching articles fed to said blisters or containers, so as to allow said size-matching articles to accumulate in said main hopper and a continuous feeding of articles to the blisters or containers.

9. A method according to claim 1, characterized in that the articles removed from said selecting means are collected in a collecting container to be sorted and recycled.

10. An apparatus for selecting and feeding articles to blister packs or containers, from a main hopper filled with articles, the apparatus including:

an auxiliary hopper, containing unselected articles and feeding said main hopper; and

selecting means situated between said auxiliary hopper and said main hopper for stopping and removing size-non-matching articles, so that said main hopper, contains only size-matching articles for feeding said blister packs or containers.

11. An apparatus, according to claim 10, further including includes sensor means, situated along said selecting means for detecting possible interruption of a flow of articles and for operating said selecting means, so as to remove size-non-matching articles stopped within said selecting means or by said selecting means.

12. An apparatus, according to claim 10, wherein said selecting means are operated cyclically to remove size-non-matching articles possibly stopped within said selecting means or by said selecting means, and to restore a continuous flow of size-matching articles.

13. An apparatus according to claim 10, including at least one first channel connected to said selecting means and leading to said main hopper.

14. An apparatus, according to claim 13, further including includes sensor means, situated downstream of said selecting

means for detecting the continuity of flow of articles into said first channel and for operating said selecting means, so as to remove size-non-matching articles stopped within said selecting means or by said selecting means.

15. An apparatus according to claim 10, including a chute connected to said selecting means and leading to said main hopper.

16. An apparatus, according to claim 15, wherein said selecting means are operated cyclically to remove size-non-matching articles possibly stopped within said selecting means or by said selecting means, and to restore a continuous flow of size-matching articles.

17. An apparatus, according to claim 10, further including a first linear vibrating conveyor situated downstream of said auxiliary hopper, for feeding unselected articles to a selector, which is substantially inclined and leads to said selecting means.

18. An apparatus, according to claim 10, wherein said selecting means include at least one tubular portion having an inlet side and an outlet side, having internal dimension matching the nominal size of said articles, said tubular portion moving from one normal operation configuration, in which in which a flow of articles is allowed to pass, to a discharge configuration, in which the tubular portion is rotated to discharge size-non-matching articles jammed and stopped within said tubular portion or against said inlet side of said tubular portion.

19. An apparatus, according to claim 18, further including ejecting means for interacting with said tubular portion, when in the discharge configuration, from the outlet side, so as to remove the articles present therein or stopped by said inlet side.

20. An apparatus, according to claim 18, further including first brush type rotating means, connected to and situated above said tubular portions for drawing back, with respect to the forward movement direction, unselected articles not correctly oriented with respect to said tubular portions during normal feeding of the articles, thus maintaining a single feeding layer of the articles introduced into said tubular portion.

21. An apparatus, according to claim 20, wherein, when the tubular portions are set in their discharge configuration, said first brush type rotating means refrain said unselected articles from continuing their motion and being removed.

22. Apparatus, according to claim 17, further including a second substantially horizontal linear vibrating conveyor situated downstream of said second hopper for feeding size-matching articles to a loader leading to said blisters or containers.

23. An apparatus, according to claim 22, further including second brush type rotating means connected to and situated above said loader, for drawing back, with respect to the movement forward direction, the size-matching articles not correctly oriented, thus maintaining a single feeding layer of

size-matching articles fed to said blister packs or containers.

24. An apparatus, according to claim 19, wherein said ejecting means are operated by pneumatic cylinders.

25. An apparatus, according to claim 10, wherein said selecting means include a tapered inlet section for each first channel and a shutter connected to said tapered inlet section and opened to discharge jammed and stopped articles.

26. An apparatus, according to claim 13, including a plurality of second channels, substantially parallel and arranged one beside another, fed by said main hopper, for feeding size matching articles to said blisters or containers.

27. An apparatus, according to claim 13, including a plurality of first channels, substantially parallel and arranged one beside another, fed by said auxiliary hopper and leading to said main hopper, and a plurality of second channels, substantially parallel and arranged one beside another, fed by said main hopper, for feeding size matching articles to said blisters or containers.

28. An apparatus, according to claim 10, wherein the flow rate of unselected articles fed to said selecting means is higher than the flow rate of size-matching articles fed to said blisters or containers, so as to allow said size-matching articles to accumulate inside said main hopper.

29. An apparatus, according to claim 10, wherein when the selecting means are operated, the discharged articles are sent to a collecting container.